10/28/14

Scientific Laboratory Division
1101 Camino de Salud, N.E.
Albuquerque, NM 87102
(505) 383-9000

EPA: 141001-2011

LIMS Report #: 278552 **Request Id:** 2479605

Submitter: NMED Field Office, Silver City
3802 32nd St. Bypass, Suite D
Silver City, NM 88061

Submitter Code: 85
Collector: MATT SCHULTZ
User Code: 55410

CC Recipient(s):

Facility/Sampling Point ID: GROUNDHOG #5
COC Initiated: No

Sample #: 2014030886
Sample Type: Water, Non-filtered
Sample Note: NPS Anions

Date Collected: 9/30/2014
Date Received: 10/1/2014
Date Reported: 10/28/2014

EPA 300.0 Part A Anions - Chloride and/or Sulfate

Analysis Date: 10_15_2014 12_34_08	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
Chloride	<10.0	mg/L	10	1	10.0	BC	

EPA 300.0 Part A Anions - Chloride and/or Sulfate

Analysis Date: 10_15_2014 5_05_50	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
Sulfate	1700	mg/L	10	100	1000	BC	

SLD Screen Color

Analysis Date: 10/01/2014 16:21:00	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
Color Comparison	5	NTU	0			BC	

SM 2320 B - Alkalinity, bicarbonate, carbonate, pH

Analysis Date: 10/06/2014 12:33	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
Alkalinity	130	mg/L	20	1	20.0	BC	A
Carbonate	0	mg/L	0	1	0	BC	
Bicarbonate	130	mg/L	20	1	20.0	BC	

Note: LRB was greater than the MDL but less than the MRL

Final

718058

LIMS Report #: **278552** **Request Id:** 2479605

Sample #: 2014030886 **Date Collected:** 9/30/2014
Sample Type: Water, Non-filtered **Date Received:** 10/1/2014
Date Reported: 10/28/2014

SM2510B Conductivity

Analysis Date: 10/22/2014 14:10:00	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
Conductivity	3070	µmho/cm	0.18	1	0.18	BC	

SM2540C Total Dissolved Solids (TDS)

Analysis Date: 10/06/2014 15:45:00	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
Total Dissolved Solids	3090	mg/L	25.0	1	25	ALS	

SM 2540D Total Suspended Solids - TSS

Analysis Date: 10/03/2014 12:05:00	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
Total Suspended Solids	<3	mg/L	3.0	1	3	GPL	

SM4500F-C - Fluoride

Analysis Date: 10/20/2014 10:12	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
Fluoride	0.68	mg/L	0.1	1	0.10	BC	**A**

Note: LRB was greater than the MDL but less than the MRL

SM 4500H+ pH

Analysis Date: 10/06/2014 12:33	Result	Units	MRL	Dilution Factor	SDL	Analyst	Data Qualifier
pH	7.17					BC	

Final

Definitions

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µg/L - micrograms of analyte in a liter of water.

mg/kg - milligrams of analyte in a kilogram of soil, sediment, or solid.

µg/kg - micrograms of analyte in a kilogram of soil, sediment, or solid.

ppbv - parts per billion by volume air.

Data Qualifier Codes

A - See note/comments.

B - Analyte was detected in the laboratory blank.

C - Spike recovery is within method acceptance limits.

D - Spike recovery is not within method acceptance limits.

E - Analyte value exceeded calibration range.

F - Sample matrix interference suspected.

H - Sample was analyzed in duplicate.

I - Sample was analyzed in triplicate.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

K - Holding time was exceeded at laboratory.

L - Regulated parameter value equals or exceeds the EPA SDWA Maximum Contamination Level.

M - Regulated parameter value equals or exceeds the EPA SDWA Action Level.

N - Insufficient sample to verify results.

O - Method internal standard(s) not within method acceptance limits when analyzed undiluted.

P - Sample rejected/voided at laboratory.

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S - Relative percent difference between duplicates greater than 10% (waters).

T - Relative percent difference between duplicates greater than 30% (soils).

U - Analyte was not detected in this sample above the method's sample detection limit.

Scientific Laboratory Division
1101 Camino de Salud, N.E.
Albuquerque, NM 87102
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EPA: 141001-2011

LIMS Report #: 280038

Request Id: 2479607

Submitter: NMED Field Office, Silver City
3802 32nd St. Bypass, Suite D
Silver City, NM 88061

Submitter Code: 85
Collector: MATT SCHULTZ
User Code: 55410

CC Recipient(s):

Facility/Sampling Point ID: GROUNDHOG #5
COC Initiated: No

Sample #: 2014030888
Sample Type: Water, Filtered
Sample Note: Dissolved Metals

Date Collected: 9/30/2014 10:45
Date Received: 10/1/2014 13:20
Date Reported: 11/6/2014

200.7 ICP/OES Metals (Liquid)

Analysis Date: 10/03/2014	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Boron	0.08	mg/L	0.05	1	0.05	KMS	
Calcium	580	mg/L	1	1	1	KMS	
Iron	<0.05	mg/L	0.05	1	0.05	KMS	
Magnesium	140	mg/L	0.1	1	0.1	KMS	
Potassium	32	mg/L	1	1	1	KMS	
Sodium	68	mg/L	1	1	1	KMS	
Total Hardness	2000	mg/L		1		BGD	

EPA 200.8 ICP/MS Metals (Liquid)

Analysis Date: 10/23/2014 14:08	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Aluminum	<0.01	mg/L	0.01	1	0.01	SMP	C
Antimony	<0.001	mg/L	0.001	1	0.001	SMP	C
Arsenic	0.002	mg/L	0.001	1	0.001	SMP	C
Barium	0.1	mg/L	0.1	1	0.1	SMP	C
Beryllium	<0.001	mg/L	0.001	1	0.001	SMP	C
Cadmium	<0.001	mg/L	0.001	1	0.001	SMP	C
Chromium	<0.001	mg/L	0.001	1	0.001	SMP	C
Cobalt	0.001	mg/L	0.001	1	0.001	SMP	C
Copper	0.01	mg/L	0.01	1	0.01	SMP	C
Lead	<0.001	mg/L	0.001	1	0.001	SMP	C
Molybdenum	0.003	mg/L	0.001	1	0.001	SMP	C
Nickel	0.03	mg/L	0.01	1	0.01	SMP	C
Silver	<0.001	mg/L	0.001	1	0.001	SMP	C

Final

LIMS Report #: 280038 **Request Id:** 2479607

Sample #: 2014030888 **Date Collected:** 9/30/2014 10:45
Sample Type: Water, Filtered **Date Received:** 10/1/2014 13:20
Date Reported: 11/6/2014

EPA 200.8 ICP/MS Metals (Liquid)

Analysis Date: 10/23/2014 14:08	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Thallium	<0.001	mg/L	0.001	1	0.001	SMP	C
Uranium	0.003	mg/L	0.001	1	0.001	SMP	C
Vanadium	0.006	mg/L	0.001	1	0.001	SMP	C
Zinc	0.03	mg/L	0.01	1	0.01	SMP	C

EPA 200.8 ICP/MS Metals (Liquid)

Analysis Date: 10/29/2014 13:45	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Manganese	0.11	mg/L	0.001	5	0.005	SMP	

EPA 200.9 GFAA Selenium (Liquid)

Analysis Date: 10/9/2014	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Selenium	0.012	mg/L	0.005	1	0.005	MMW	

EPA 245.1 CVAA Mercury (Liquid)

Analysis Date: 10/17/2014	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Mercury	<0.0002	mg/L	0.0002	1	0.0002	CL	

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Q - Sample submitted to laboratory past holding time

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T - Relative percent difference between duplicates greater than 30% (soils).

U - Analyte was not detected in this sample above the method's sample detection limit.

Final

Scientific Laboratory Division
1101 Camino de Salud, N.E.
Albuquerque, NM 87102
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EPA: 141001-2011

LIMS Report #: 283263 **Request Id:** 2479606

Submitter: NMED Field Office, Silver City
3082 32nd St. Bypass, Suite D
Silver City, NM 88061

Submitter Code: 85
Collector: MATT SCHULTZ
User Code: 55410

CC Recipient(s):

Facility/Sampling Point ID: GROUNDHOG #5
COC Initiated: No

Sample #: 2014030887 **Date Collected:** 9/30/2014 10:45
Sample Type: Water, Non-filtered **Date Received:** 10/1/2014 13:20
Date Reported: 12/4/2014
Sample Note: Total Metals

EPA 200.7 ICP/OES Metals (Liquid)

Analysis Date: 10/27/2014	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Iron	<0.05	mg/L	0.05	1	0.05	KMS	C
Potassium	33	mg/L	1	1	1	KMS	C
Sodium	69	mg/L	1	1	1	KMS	C

Note: **Sample digested using SLD Method 41414**

EPA 200.7 ICP/OES Metals (Liquid)

Analysis Date: 10/30/2014	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Boron	0.08	mg/L	0.05	1	0.05	KMS	

Note: **Sample digested using SLD Method 41414 Boron Digest LRB = 0.008mg/L**

EPA 200.7 ICP/OES Metals (Liquid)

Analysis Date: 10/30/2014	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Calcium	590	mg/L	1	5	5	KMS	
Magnesium	150	mg/L	0.1	5	0.5	KMS	
Total Hardness	2100	mg/L		5		KMS	

Note: **Sample digested using SLD Method 41414**

EPA 200.8 ICP/MS Metals (Liquid)

Analysis Date: 11/25/2014 13:41	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Aluminum	<0.01	mg/L	0.01	1	0.01	SMP	C

Final

LIMS Report #: 283263 **Request Id:** 2479606

Sample #: 2014030887 **Date Collected:** 9/30/2014 10:45
Sample Type: Water, Non-filtered **Date Received:** 10/1/2014 13:20
Date Reported: 12/4/2014

EPA 200.8 ICP/MS Metals (Liquid)

Analysis Date: 11/25/2014 13:41	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Antimony	<0.001	mg/L	0.001	1	0.001	SMP	C
Arsenic	<0.001	mg/L	0.001	1	0.001	SMP	C
Barium	0.1	mg/L	0.1	1	0.1	SMP	D
Beryllium	<0.001	mg/L	0.001	1	0.001	SMP	C
Cadmium	<0.001	mg/L	0.001	1	0.001	SMP	C
Chromium	<0.001	mg/L	0.001	1	0.001	SMP	C
Cobalt	0.001	mg/L	0.001	1	0.001	SMP	C
Copper	0.01	mg/L	0.01	1	0.01	SMP	C
Lead	<0.001	mg/L	0.001	1	0.001	SMP	C
Molybdenum	0.003	mg/L	0.001	1	0.001	SMP	C
Nickel	0.02	mg/L	0.01	1	0.01	SMP	C
Silver	<0.001	mg/L	0.001	1	0.001	SMP	C
Thallium	<0.001	mg/L	0.001	1	0.001	SMP	C
Uranium	0.003	mg/L	0.001	1	0.001	SMP	C
Vanadium	0.005	mg/L	0.001	1	0.001	SMP	C
Zinc	0.03	mg/L	0.01	1	0.01	SMP	C

Note: **Sample digested using SLD Method 41414** **Barium digest LFM recovery=35.2%**

EPA 200.8 ICP/MS Metals (Liquid)

Analysis Date: 12/03/2014 14:22	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Manganese	0.12	mg/L	0.001	5	0.005	SMP	C

Note: **Sample digested using SLD Method 41414**

EPA 200.9 GFAA Selenium (Liquid)

Analysis Date: 10/23/2014	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Selenium	0.012	mg/L	0.005	1	0.005	MMW	D, F

Note: **Sample digested using SLD Method 41414** **Selenium digest LFM=78.5% (EPA allows +/-30%)**

EPA 245.1 CVAA Mercury (Liquid)

Analysis Date: 10/17/2014	Result	Units	MRL	Dilution Factor	SDL	Analyst initials	Data Qualifier
Mercury	<0.0002	mg/L	0.0002	1	0.0002	CL	

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Freeport-McMoRan Copper Gold Inc. Water Quality Monitoring Data

Site Number	Sample Identifier	Sample Date	Comments	Reason for No Sample	MissingParameterName0	Al, Diss (mg/L)	Alk, CO3 (mg/L)	Al, Tot. (mg/L)	Alk, HCO3 (mg/L)	Alk, Tot. (mg/L)	As, Diss (mg/L)	As TR (mg/L)	Ca, Diss (mg/L)	Ca, Tot. (mg/L)
Water Quality Standard						5					0.1			
Luckybill Trench	Luckybill Trench	9/30/2014	Chino Split		NA	<0.08	<1	<0.08	132	132	<0.025	<0.025	560	538
Luckybill Trench	Luckybill Trench	9/30/2014	NMED Split			<0.01	0	<0.01	130	130	0.002	<0.001	580	590

Freeport-McMoRan Copper Gold Inc. Water Quality Monitoring Data

Site Number	Sample Identifier	Sample Date	Comments	Reason for No Sample	Cd, Tot. (mg/L)	Cd, Diss (mg/L)	Cl, Tot. (mg/L)	Co, Diss (mg/L)	Co, Tot. (mg/L)	Cond, Fld (micromho)	Cond, 25C (micromho)	Cr, Diss (mg/L)	Cr, Tot. (mg/L)	Cu, Diss (mg/L)	F, Tot. (mg/L)
Water Quality Standard						0.01	250	0.05				0.05		1	1.6
Luckybill Trench	Luckybill Trench	9/30/2014	Chino Split		<0.002	<0.002	3.97	<0.006	<0.006	2,831	3,110	<0.006	<0.006	<0.01	1.02
Luckybill Trench	Luckybill Trench	9/30/2014	NMED Split		<0.001	<0.001	<10.0	0.001	0.001		3,070	<0.001	<0.001	0.01	0.68

Freeport-McMoRan Copper Gold Inc. Water Quality Monitoring Data

Site Number	Sample Identifier	Sample Date	Comments	Reason for No Sample	Fe, Diss (mg/L)	Fe, Tot. (mg/L)	K, Diss (mg/L)	K, Tot. (mg/L)	Mg, Diss (mg/L)	Mg, Tot. (mg/L)	Mn, Diss (mg/L)	Mn, Tot. (mg/L)	Na, Diss (mg/L)	Ni, Diss (mg/L)	Na, Tot. (mg/L)	Ni, Tot. (mg/L)
Water Quality Standard					1						0.2			0.2		
Luckybill Trench	Luckybill Trench	9/30/2014	Chino Split		<0.06	<0.06	33.9	34.7	144	145	0.0993	0.096	71.5	<0.01	73.8	<0.01
Luckybill Trench	Luckybill Trench	9/30/2014	NMED Split		<0.05	<0.05	32	33	140	150	0.11	0.12	68	0.03	69	0.02

Freeport-McMoRan Copper Gold Inc. Water Quality Monitoring Data

Site Number	Sample Identifier	Sample Date	Comments	Reason for No Sample	Pb, Diss (mg/L)	pH, Field (SU)	Pb, Tot. (mg/L)	SO4, Tot. (mg/L)	TDS (mg/L)	Water Temp (Degrees C)	Water Temp (Degrees F)	Zn, Diss (mg/L)	Zn, Tot. (mg/L)
Water Quality Standard					0.05	6 - 9		600	1000			10	
Luckybill Trench	Luckybill Trench	9/30/2014	Chino Split		<0.0075	6.7	<0.0075	**2,070**	**3,070**	20.3	68.5	0.0355	0.0362
Luckybill Trench	Luckybill Trench	9/30/2014	NMED Split		<0.001		<0.001	**1,700**	**3,090**			0.03	0.03